

**VA**



U.S. Department  
of Veterans Affairs



# Suicide and PTSD: Navigating Risk and Tailoring Evidence-Based Treatment

**Ryan Holliday, Ph.D.**

Rocky Mountain Mental Illness, Research, Education and Clinical Center for Suicide Prevention  
University of Colorado Anschutz Medical Campus





## Disclosure Statement

This presentation is based on work supported, in part, by the Rocky Mountain Mental Illness Research, Education and Clinical Center for Suicide Prevention and Department of Veterans Affairs (VA), but does not necessarily represent the views of the VA or the United States Government.



# Training Overview

**Objective:** to understand the relation of PTSD and suicide as it applies to relevant clinical application

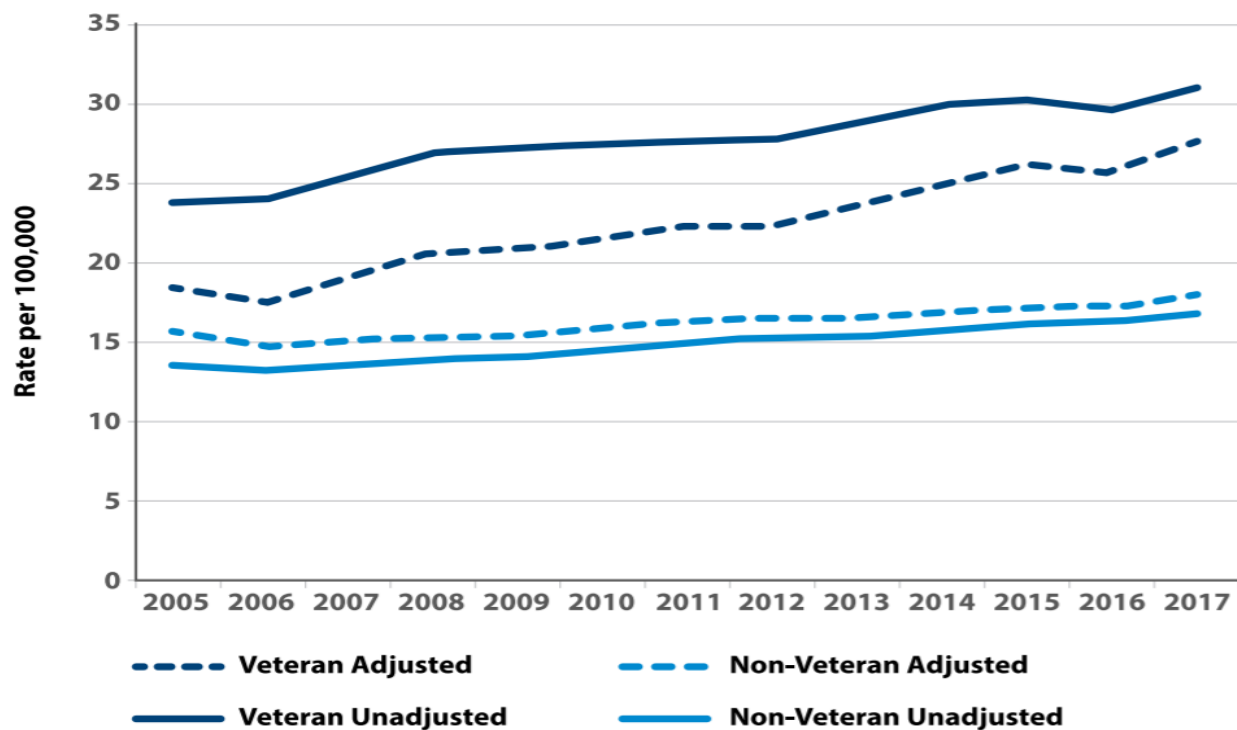
1. The scope of Veteran suicide
2. Conceptualization and drivers of suicidal self-directed violence among Veterans with PTSD
3. Methods of tailoring suicide risk assessment and intervention in the context of PTSD evidence-based treatment
4. Questions and Comments



# **1. The Scope of Veteran Suicide**

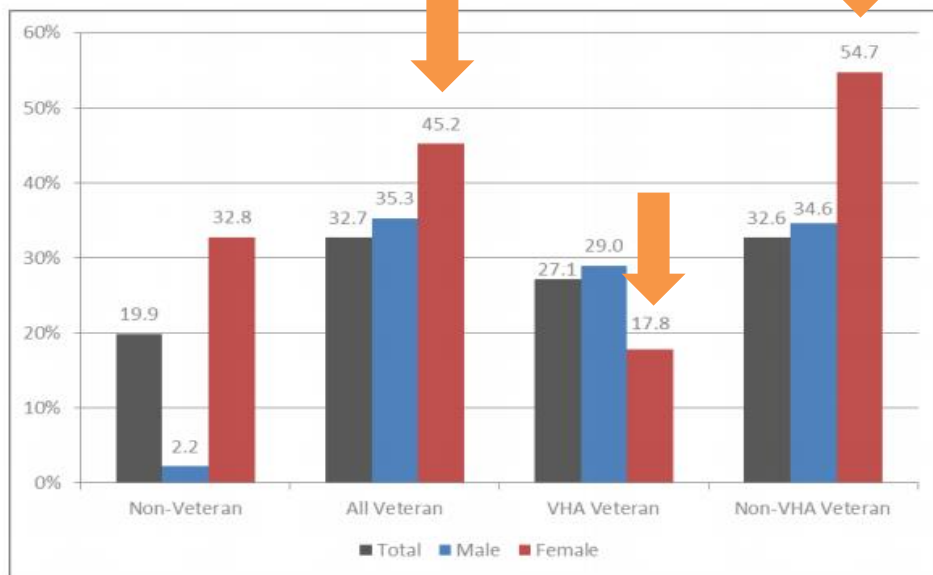
## Suicide in the Veteran Population

- Suicide remains the 10<sup>th</sup> leading cause of death in the United States<sup>1</sup>
- Suicide among Veterans exceeds that of the non-Veteran population, with age- and sex-adjusted rates being 1.5 times **greater** among Veterans<sup>2</sup>



## Suicide in the Veteran Population

- Suicide remains the 10<sup>th</sup> leading cause of death in the United States<sup>1</sup>
- Suicide among Veterans exceeds that of the non-Veteran population, with age- and sex-adjusted rates being 1.5 times **greater** among Veterans<sup>2</sup>
  - Further, suicide risk is especially salient among several subsets of the Veteran population (e.g., women, LGBT)



**Main finding:** After adjusting for age, suicide rates among the Veteran and non-Veteran populations increased from 2005 to 2015.



## Sources of Increased Suicide Risk

- Increased risk for suicide in Veterans has been noted in a number of subsets of the Veteran population, including:
  - Those receiving outpatient mental health services<sup>3</sup>
  - Those who have received psychiatric discharge<sup>4</sup>
  - Patients receiving treatment for depression<sup>5</sup>
  - Men with bipolar disorder and women with substance use disorders<sup>6</sup>
  - Patients with a history of previous suicide attempts or non-suicidal self-directed violence<sup>7-9</sup>
  - Those experiencing psychosocial stressors (e.g., homelessness, justice-involvement)<sup>10-11</sup>



## Sources of Increased Suicide Risk

- Increased risk for suicide in Veterans has been noted in a number of subsets of the Veteran population, including:
  - Those receiving outpatient mental health services<sup>3</sup>
  - Those who have received psychiatric discharge<sup>4</sup>
  - Patients receiving treatment for depression<sup>5</sup>
  - Men with bipolar disorder and women with substance use disorders<sup>6</sup>
  - Patients with a history of previous suicide attempts or non-suicidal self-directed violence<sup>7-9</sup>
  - Those experiencing psychosocial stressors (e.g., homelessness, justice-involvement)<sup>10-11</sup>

**IMPORTANTLY, Veterans experience a number of these factors with greater propensity than the general non-Veteran population**





## Prevalence of Suicidal Ideation and Attempt in Veteran Samples

- Determination of exact prevalence of suicidal ideation and attempt remains difficult due to a number of factors, including:
  - Stigma of reporting
  - Fear of hospitalization leading to underreporting
  - Distrust of providers
  - Data are often specific only to those seeking care
- Additionally, the overwhelming majority has focused on Veterans accessing VHA care, impacting the ability to infer generalizable rates to the larger Veteran population



## Prevalence of Suicidal Ideation and Attempt in Veteran Samples

- Of available research, rates have varied widely
  - Among 2,602 veterans, 3.8% and 0.4% reported suicidal ideation and a suicide attempt respectively in the past 12 months<sup>12</sup>
  - However, in a sample of treatment seeking OEF-OIF Veterans, 21.6% reported suicidal ideation in the past 2 weeks<sup>13</sup>
  - Additionally, in samples where report was anonymous, report increased substantially<sup>14</sup>

**Risk for suicidal ideation and attempt thus likely differs based on clinical population, method of assessment, and presentation of assessment**



## **2. Conceptualization and drivers of suicidal self-directed violence among Veterans with PTSD**



## What do we know about the relationship between PTSD and Suicide?

- There has been a significant increase in research focusing on the association between PTSD and suicide in the past few decades
- The association, though often significant, is complicated with numerous identified potential mediators and moderators



## Relationship Between PTSD and Suicide


- A systematic review in 2013 found that among veterans, a history of PTSD is associated with increased risk for suicide<sup>15</sup>
- However, this review noted that the association may not always be direct in nature
- Numerous concurrent factors may inherently drive risk in this population, including:
  - Cognitive-affective states (e.g., guilt, shame, self-blame)<sup>16-19</sup>
  - Lack of social support post-trauma<sup>20</sup>
  - Psychiatric comorbidity (e.g., depression, substance use)<sup>21-22</sup>



## Relationship Between PTSD and Suicide

- Most recently, our team extended this review, focusing on diagnosis of PTSD as it relates to suicidal ideation, suicide attempt, and suicide respectively<sup>23</sup>
- Mirroring prior examinations,<sup>15</sup> PTSD was notably associated with suicidal thoughts and behaviors at a *bivariate* level

# Posttraumatic Stress Disorder, Suicidal Ideation, and Suicidal Self-Directed Violence Among U.S. Military Personnel and Veterans: A Systematic Review of the Literature From 2010 to 2018

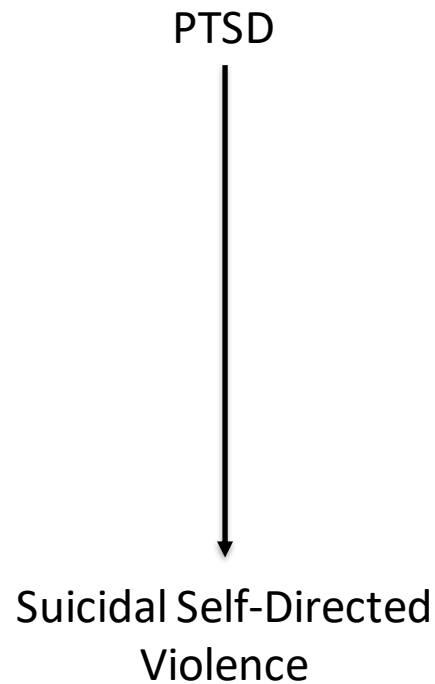
 Ryan Holliday<sup>1,2\*</sup>,  Lauren M. Borges<sup>1,2</sup>,  Kelly A. Stearns-Yoder<sup>1,3</sup>,  Adam S. Hoffberg<sup>1</sup>,  Lisa A. Brenner<sup>1,2,3,4</sup> and  Lindsey L. Monteith<sup>1,2</sup>



## Relationship Between PTSD and Suicide

- Most recently, our team extended this review, focusing on diagnosis of PTSD as it relates to suicidal ideation, suicide attempt, and suicide respectively<sup>23</sup>
- Mirroring prior examinations,<sup>15</sup> PTSD was notably associated with suicidal thoughts and behaviors at a *bivariate* level
- Nonetheless, findings were largely not replicated at the *multivariate* level, indicating a likely complex, interdependent relationship between PTSD and suicide

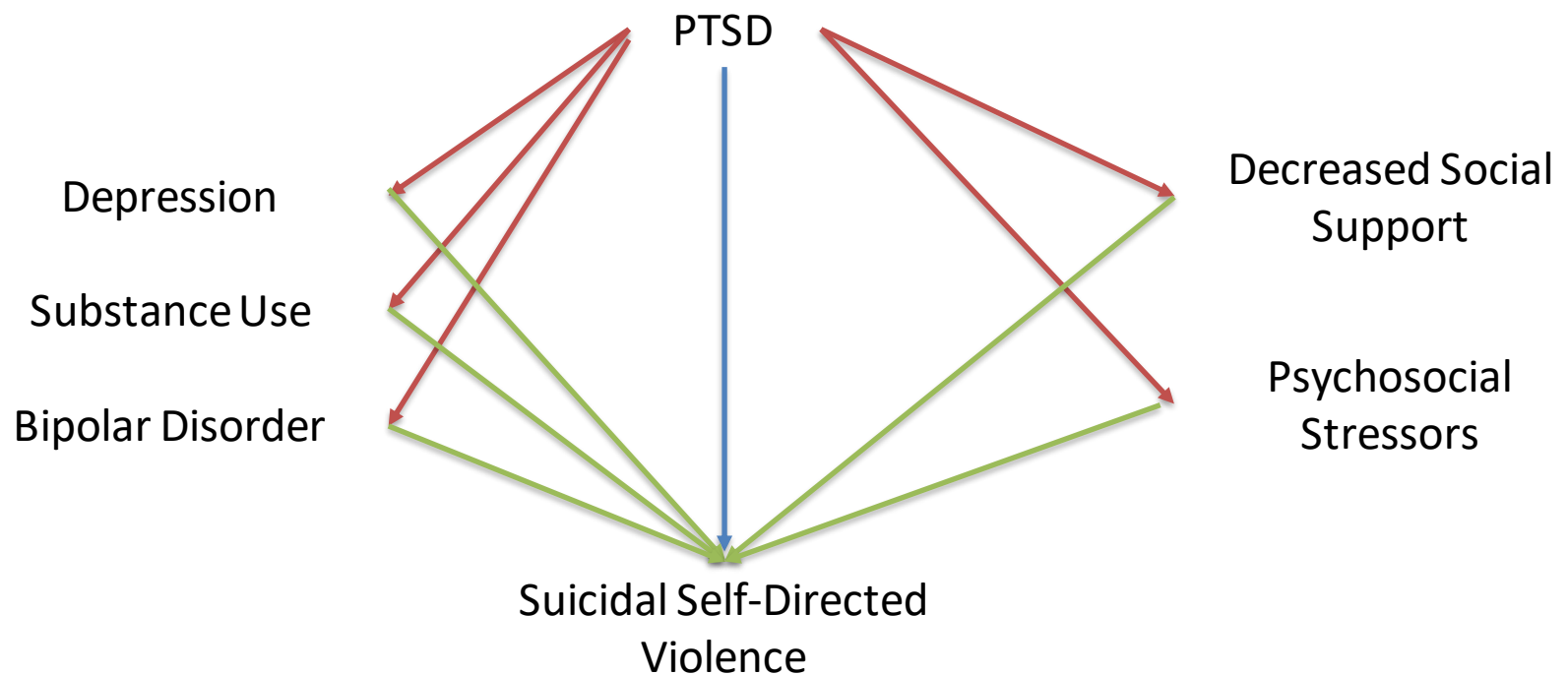
# Relationship Between PTSD and Suicide







# Relationship Between PTSD and Suicide

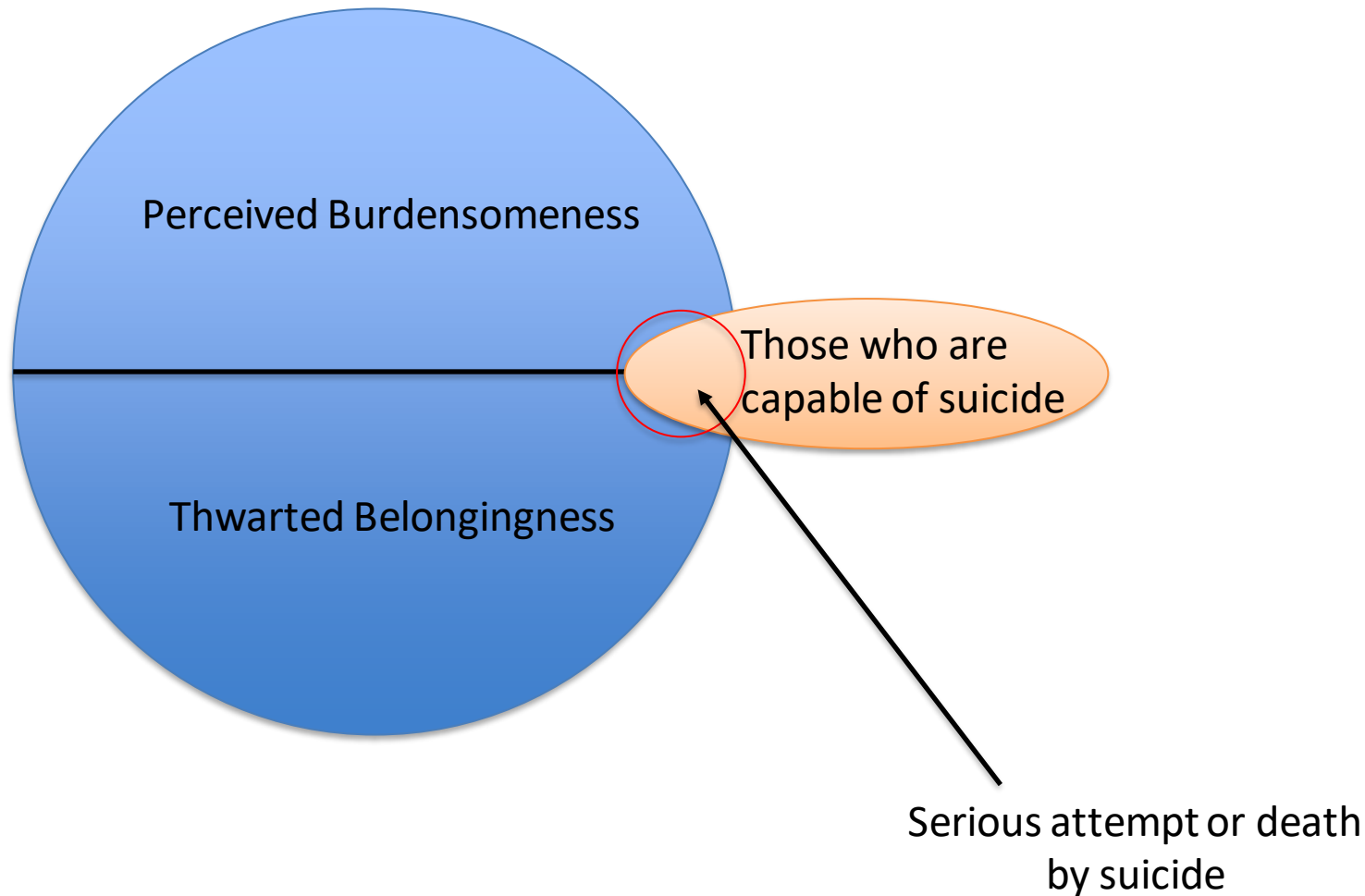




# Conceptualizing Suicide Risk Within Theoretical Frameworks

- Given the complex nature of understanding and predicting suicidal self-directed violence, a singular diagnostic framework is likely inadequate
- In particular, theoretical frameworks which conceptualize risk within theory-driven constructs encompassing diagnosis, stressors, and interpersonal relationships are likely requisite

## Interpersonal Theory of Suicide<sup>24</sup>





## Perceived Burdensomeness

- The perception that one is a burden to others



## Perceived Burdensomeness

- The perception that one is a burden to others

*“My death is worth more than my life to my loved ones/family/society”*



# Thwarted Belongingness

- An unmet psychological need to socially belong



# Thwarted Belongingness

- An unmet psychological need to socially belong

*“No one cares. I’m all alone.”*



## Those Capable of Suicide

- Desire to die by suicide (e.g., perceived burdensomeness and thwarted belongingness) are not sufficient for engaging in suicidal self-directed violence
- Acquired capability to engage in suicidal self-directed violence is achieved by losing fear associated with suicidal self-directed violence and increasing physical pain tolerance<sup>24</sup>

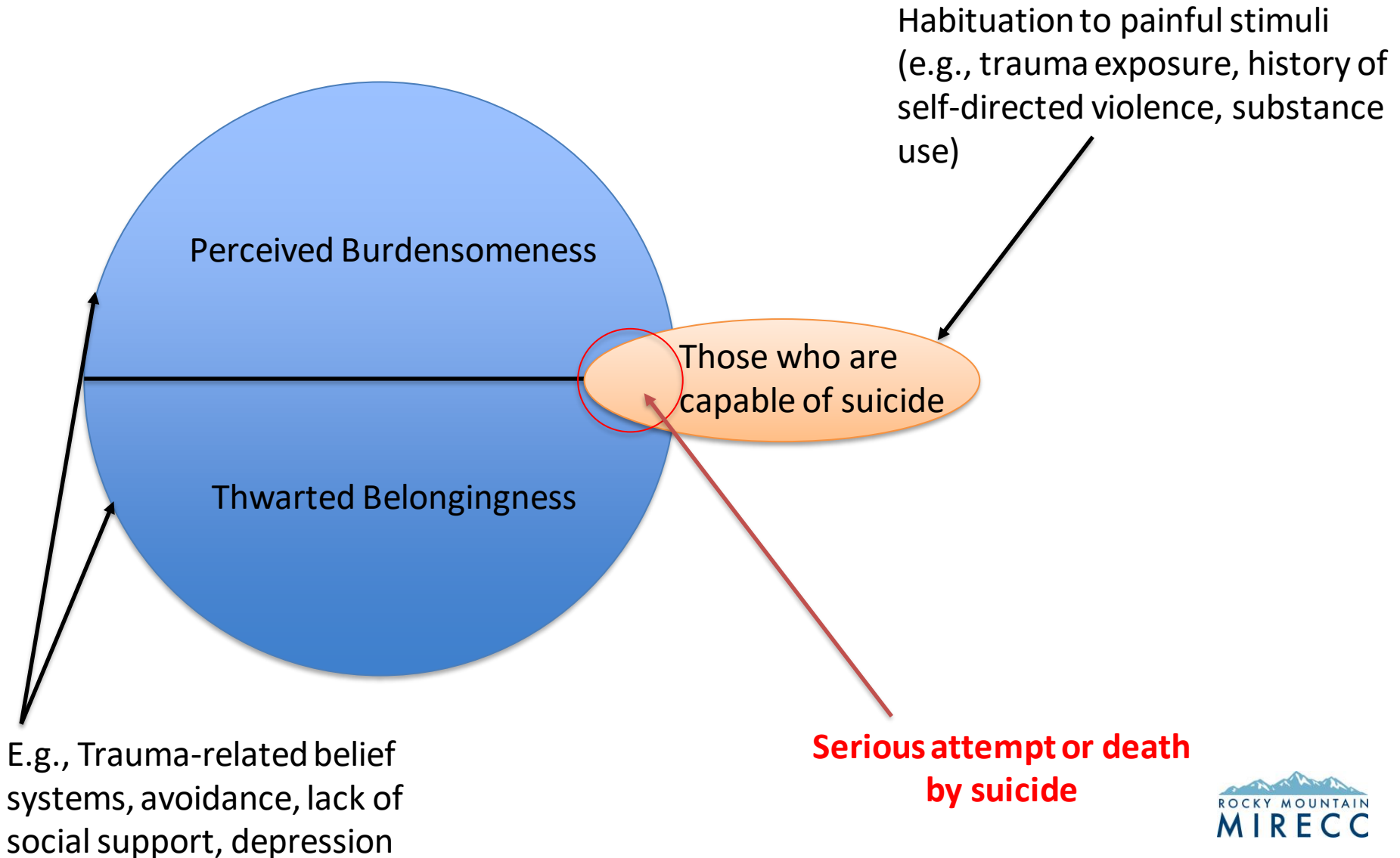




## Those Capable of Suicide

- Habituation to painful stimuli (e.g., previous self-directed violence, military [e.g., military sexual trauma, combat exposure] and non-military [e.g., childhood abuse, intimate partner violence]) functions to lower the fear of death **AND** elevate tolerance to pain<sup>25</sup>
- Capability develops as a function of repeated exposure to these painful stimuli through which the individual habituates to the previously aversive stimuli<sup>24</sup>

## Interpersonal Theory of Suicide: PTSD and Suicide Risk<sup>24-26</sup>





## The Role of Trauma Exposure

- Exposure to painful and provocative experiences, especially those characterized by violence and aggression, contribute to fearlessness about death and increased pain tolerance, enhancing an individual's capability to attempt suicide<sup>25</sup>



## Not all Trauma Experiences are “Equal” in Driving Risk

- For example, combat traumas can vary in terms of<sup>27</sup> :
  - Level of violence (firefights vs. non-hostile, routine patrols)
  - Proximity (hand-to-hand combat vs. artillery fire in the distance)
  - Personal responsibility (killing an enemy combatant vs. witnessing others engaged in combat)
  - Occupation (medic vs. infantrymen)
  - Location of deployment (well-controlled area vs. hostile area with high combat operations)

## Integrating Additional Theories<sup>25,28</sup>

- Risk may be especially pronounced among Veterans who:
  - Have decreased capacity to cope with distressing symptoms or psychosocial stressors (e.g., psychiatric comorbidity; traumatic brain injury)
  - May have decreased likelihood of accessing care due to distrust, limited resources, or ambivalence (e.g., belief that avoidance is healthy)
  - Have increased access to firearms<sup>29</sup>

① Are you in pain and hopeless?

YES

Suicidal ideation

NO

No ideation

② Does your pain exceed your connectedness?

YES

Strong ideation

NO

Modest ideation

③ Do you have the capacity to attempt suicide?

YES

Suicide attempt

NO

Ideation only





## What does this all mean?

- Take in aggregate, from these theory-driven frameworks:
  - Variance in risk for suicide among patients with PTSD may be partially explained based on differing levels of acquired capability due to perceptual and contextual components of the patient's trauma history, especially traumas characterized by violence and aggression
  - Transition from suicidal thoughts to behavior is likely motivated by an acquired capability, difficulties coping with distress, and the ability to engage in suicidal behavior due to access to lethal means



## **2. Methods of tailoring suicide risk assessment and intervention in the context of PTSD evidence-based treatment**



## Concepts to be on the same page about

- Suicide is a rare event
- No 100% “foolproof” method of predicting suicide
- Efforts at prediction yield both false-positives as well as some false-negatives
- Structured measures may augment, but do not replace systematic risk assessment
- Conversely, lack of use of structured measures may lead to missing information and is not consistent with measurement-based care guidelines





## Suicide Risk Assessment

- As previously discussed, identifying suicide risk remains a challenge
- This can be particularly challenging with Veterans with PTSD due to distrust, multimorbidity, and clinical complexity
- As such, multi-modal assessment of prominent suicide risk factors (e.g., suicidal thoughts and self-directed violence) is critical
  - In particular, clinical interview coupled with structured measures can facilitate detection of suicide risk
  - Additionally, by using multiple methods, providers can actively discuss presence of suicide risk and explore discrepancy to identify factors influencing disclosure



## Suicide Risk Assessment

- Structured assessments which are brief and free, for example the Columbia-Suicide Severity Rating Scale are beneficial in detecting risk and identifying several aspects (e.g., intent, plan)

1. Over the past month, have you wished you were dead or wished you could go to sleep and not wake up?
2. Over the past month, have you had any actual thoughts of killing yourself?
3. Over the past month, have you been thinking about how you might do this?
4. Over the past month, have you had these thoughts and had some intention of acting on them?
5. Over the past month, have you started to work out or worked out the details of how to kill yourself?
6. If yes to Q5, at any time in the past month did you intend to carry out this plan?
7. In your lifetime, have you ever done anything, started to do anything, or prepared to do anything to end your life (for example, collected pills, obtained a gun, gave away valuables, went to the roof but didn't jump)?
8. If yes to Q7, was this within the past 3 months?

A positive C-SSRS (Columbia) score is a 'Yes' response to items 3, 4, 5, or 8



## Tailoring Suicide Risk Assessment among Veterans with PTSD

- Several factors are important to be aware of when conducting risk assessment in the presence of concurrent PTSD
  - Differentiating symptoms of PTSD or depression from suicide risk
  - Understanding that both psychiatric symptoms and suicidal thoughts can be indicative of a more chronic baseline
  - Navigating aspects of distrust, power and control, and safety concerns; especially should hospitalization be indicated
- As such, risk assessment should take a trauma-informed approach, being empathetic, non-judgmental, and direct



## Acute Intervention and Prevention

- Nonetheless, presence of suicidal thoughts does not necessarily indicate an individual is at elevated acute risk and requires additional precautions
- Rather, presence of increased risk factors (e.g., hopelessness, immediate intent to act upon these actions) would suggest risk necessitating additional precautions
- However, interventions can be implemented to enhance safety in the presence of suicidal thoughts regardless of intensity



## Stratify Risk – Severity & Temporality

**Low**

**Intermediate**

**High**

**Acute**

**Chronic**



## What's the Risk?

- **35 y/o OEF/OIF/OND Veteran with multiple combat deployments**
- **3 prior suicide attempts and chronic SI**
- **History of depression and PTSD**
- **Family history of suicide**
- **History of using alcohol, marijuana, and cocaine to cope with stress**
- **Recent stressor of learning that his wife has requested a divorce**

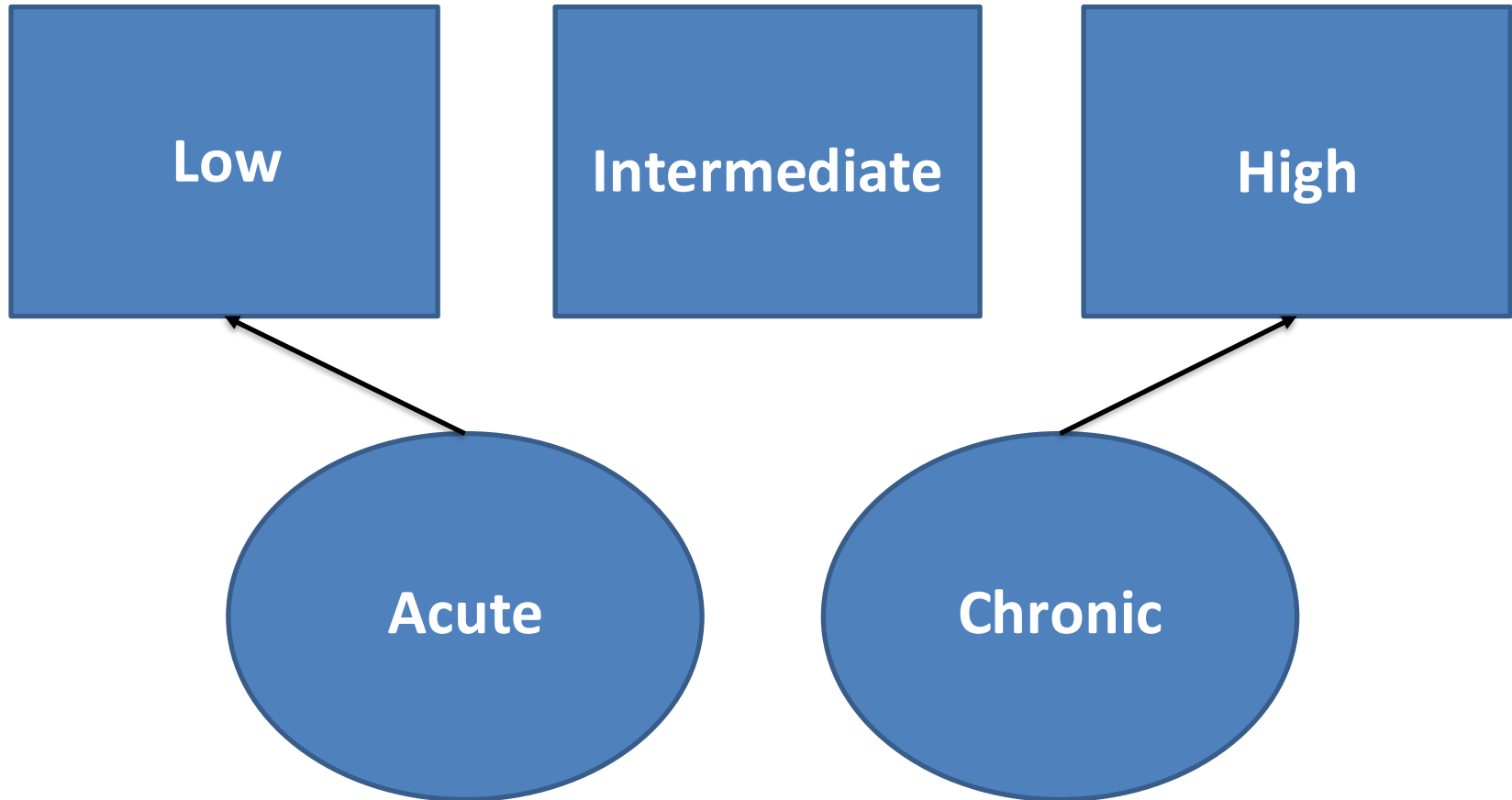


## What's the Risk?

- **35 y/o OEF/OIF/OND combat Veteran**
- **3 prior suicide attempts and chronic SI**
  - Reports less frequent thoughts of suicide and overall mood is stable; no intent
- **History of depression and PTSD**
  - Engaged in PE and has experienced a 23-point decline in PCL
- **Family history of suicide**
- **History of using alcohol, marijuana, and cocaine to cope with stress**
  - Currently in sustained sobriety
- **Recent stressor of learning that his wife has requested a divorce**
  - Participated in IBCT with a mutual decision to divorce, endorses he is using coping skills he learned in prior therapy



## Stratify Risk – Severity & Temporality







# Acute Suicide Risk Interventions

## Safety Plans $\neq$ No Suicide Contracts

- Traditionally, providers had relied on “No Suicide Contracts” as a method of decreasing acute suicide risk
- No Suicide Contracts entailed patients “solemnly promising” that they will not directly harm themselves under any circumstances. However, No Suicide Contracts have been found to:
  - **NOT** be protective against suicide or malpractice
  - **NOT** be useful for risk determinations, given patient experiences of “coercion”
  - Be “intimidating” and “disempowering” per patient report





# Acute Suicide Risk Interventions – Incarceration

## Safety Plans

- More recently, Safety Plans have been established as brief suicide prevention interventions
- Safety Plans were originally developed to augment evidence-based treatments for depression by reviewing warning signs, coping skills, and emergency resources
- The underlying purpose of the Safety Plan is to increase use of autonomous coping and decrease recurrent hospitalization
- Research has found Safety Plans to be effective in reducing prospective risk for suicide as well as enhancing utilization of mental health services



## Conducting a Safety Plan

- Safety Plans are a brief intervention focused on identifying risk factors early and using coping strategies to decrease risk
- A primary focus of this tool is to increase self-efficacy and autonomy while decreasing the need for increased intensity in care
- Nonetheless, emergency resources are reviewed should they be necessary
  - Hours for provider(s)
  - VCL
  - Emergency department and 911  
**(last resort)**

MY SAFETY PLAN	
Please follow the steps described below on your safety plan. If you are experiencing a medical or mental health emergency, please call 911 at any time. If you are unable to reach your safety contacts or you are in crisis, call the Veterans Crisis Line at 1-800-273-8255 (press 1).	
<b>Step 1: Triggers, Risk Factors, and Warning Signs</b>	
Signs that I am in crisis and that my safety plan should be used:	
1.	_____
2.	_____
3.	_____
4.	_____
5.	_____
<b>Step 2: Internal Coping Strategies</b>	
Things I can do on my own to distract myself and keep myself safe:	
1.	_____
2.	_____
3.	_____
4.	_____
5.	_____
<b>Step 3: People and Social Settings that Provide Distraction</b>	
Who I can contact to take my mind off my problems/help me feel better:	
1. Name:	_____ Phone: _____



# Safety Plan Tips for Those with PTSD

- It is important to consider several factors which may be idiographic to the Safety Planning process among Veterans with PTSD<sup>30</sup>
- For example:
  - Role of avoidance-based coping (e.g., “time out” vs. avoiding *all* distressing stimuli)
  - Substance misuse as an unhealthy coping strategy
  - Safety behaviors as contraindicated
  - Utility of integrating the Safety Plan into evidence-based treatment (e.g., CBW from CPT or Breathing Exercises on Step 2; brief review of the Safety Plan while maintaining therapeutic fidelity)



# Navigating Unhealthy Coping during Safety Planning

- Should a Veteran be ambivalent to behavior change, several strategies can be utilized:
  - Psychoeducation regarding risk potential (e.g., cocaine use while on probation)
  - Exploring discrepancy in goals and values with current behavior (e.g., Veteran notes they want to see their children play baseball and continues to avoid leaving their house)
  - Motivational Interviewing approaches which weigh short- and long-term benefits and consequences
  - Discussion within active frameworks of evidence-based treatments (e.g., normalizing firearm access as a safety behavior during the Safety module of CPT)



# Addressing Acute and Chronic Suicide Risk

- Safety Planning is a great method of enhancing safety as an acute intervention
- Nonetheless, addressing drivers of suicide risk often requires longer-term, evidence-based treatment



# Addressing Drivers of Risk among those with PTSD

- Numerous studies have demonstrated existing evidence-based treatments for PTSD (e.g., PE, CPT) have the potential to reduce risk for suicide<sup>31, 32</sup>

## Impact of Intensive Treatment Programs for Posttraumatic Stress Disorder on Suicidal Ideation in Veterans and Service Members

Loren M. Post<sup>1</sup>, Philip Held<sup>2</sup>, Dale L. Smith<sup>2</sup>, Kathryn Black<sup>1</sup>, Rebecca Van Horn<sup>2</sup>, Mark H. Pollack<sup>2</sup>,  
Barbara O. Rothbaum<sup>1</sup>, and Sheila A. M. Rauch<sup>1, 3</sup>

<sup>1</sup> Department of Psychiatry and Behavioral Sciences, Emory University School of Medicine

<sup>2</sup> Department of Psychiatry and Behavioral Sciences, Rush University Medical Center


<sup>3</sup> Atlanta VA Healthcare System, Mental Health Service Line, Decatur, Georgia, United States

Depression  
& Anxiety

OFFICIAL PUBLICATION OF THE ANXIETY AND DEPRESSION ASSOCIATION OF AMERICA



Anxiety & Depression  
Association of America  
Thrupping Through Sobriety, Treatment, and Education

Prevention and Treatment |  Full Access

## TREATMENT OF POSTTRAUMATIC STRESS DISORDER REDUCES SUICIDAL IDEATION

Jaimie L. Gradus D.Sc., M.P.H. ✉, Michael K. Suvak Ph.D., Blair E. Wisco Ph.D., Brian P. Marx Ph.D.,  
Patricia A. Resick Ph.D., A.B.P.P.



## Addressing Drivers of Risk among those with PTSD

- Nonetheless, initiating and navigating suicide risk during trauma-focused treatment remains challenging
- Such barriers to engaging in treatment persist even in spite of evidence that exacerbations in suicide risk remain rare and are often not substantially elevated in trauma-focused treatment conditions<sup>33</sup>



RESEARCH ARTICLE |  Full Access

## Treating Veterans at Risk for Suicide: An Examination of the Safety, Tolerability, and Outcomes of Cognitive Processing Therapy

Erika M. Roberge , Julia A. Harris, Harrison R. Weinstein, David C. Rozek





# Barriers to Initiating and Engaging in Trauma-Focused Treatment

- A number of barriers can result in delayed or unsuccessful initiation of as well as benefit from a PTSD EBT:
  - Psychiatric comorbidity precluding participation (e.g., substance use requiring SUD treatment)
  - Difficulties with distress tolerance or emotion regulation
  - Elevated acute suicide risk or non-suicidal self-directed violence
  - Concurrent contextual or logistical barriers (e.g., lack of childcare)



# Navigating Barriers to Initiating Trauma-Focused Treatment

- Barriers to initiating treatment are common
- Dual-diagnosis treatments (e.g., COPE) or initial skills-based treatments (e.g., DBT+PE) may be beneficial, if warranted
- Similarly, problem-solving approaches may be helpful concurrently or at the onset to navigating potential barriers



# Navigating Barriers to Initiating Trauma-Focused Treatment

- Barriers to initiating treatment are common
- **Importantly**, suicidal ideation is often not a contraindication to initiating a trauma-focused treatment<sup>34</sup>

Risk level	Clinical presentation	Treatment approach
Low	No suicide ideation Suicide ideation (low intent)	Trauma-focused treatment
Moderate	Suicide ideation (moderate intent) Suicide plan (nonspecific)	Trauma-focused treatment plus crisis response plan
High	Suicide ideation (severe intent) Suicide plan (specific) Suicide preparation or rehearsal Suicide attempt within the last 3 months	Suicide-focused treatment followed by trauma-focused treatment



# Navigating Barriers to Initiating Trauma-Focused Treatment

- Barriers to initiating treatment are common
- **Importantly**, suicidal ideation is often not a contraindication to initiating a trauma-focused treatment<sup>32</sup>
- In these contexts, providers should consider acuity of acute suicide risk (e.g., recent attempt, suicidal ideation with attempt) and ability to navigate and engage in treatment



# Addressing Suicide Risk within the Context of Trauma-Focused Treatment

- Many aspects of trauma-focused treatment are likely to address drivers of suicide
  - Cognitive reframing of overaccommodated belief that one is unlovable or a burden to those around them (e.g., CBW focused on overaccommodated esteem-related beliefs)
  - Exposure therapy to facilitate increased engagement with values-consistent behaviors (e.g., *in vivo* exposure targeted at improving functioning and acquiring new learning surrounding trauma-related beliefs)
  - Decreased symptom severity and frequency which potentially exacerbate distress and coping ability
- Indeed, some researchers have posited that this may be attributable to underlying common elements of suicide-focused and trauma-focused cognitive-behavioral therapies



# Addressing Suicide Risk within the Context of Trauma-Focused Treatment

- Nonetheless, navigating treatment among Veterans with concurrent PTSD and suicide risk can be challenging:
  - Veterans may present with elevations in suicide risk or symptom severity despite participating in and benefiting from treatment
  - Desire to focus on other aspects which may feel more pressing than trauma-focused treatment (e.g., conflict with spouse, recent job loss)
  - Difficulty accepting lack of control over suicidal as well as trauma-related thoughts



# Addressing Suicide Risk within the Context of Trauma-Focused Treatment

- In these instances, providers can consider:
  - Briefly reviewing the patient's Safety Plan, and reinforcing gained skills and treatment progress (e.g., cognitive reframing, deep breathing)
  - Providing psychoeducation regarding focused treatment and openly discussing a "crisis" session in the context of delaying ongoing treatment (e.g., a supportive session may help in the moment but will not treat the drivers of PTSD; crisis session to ensure safety such as active intimate partner violence)
  - Designing cognitive and behavior experiments to further reinforce acceptance and new learning regarding lack of control over certain thoughts and at the same time gains in other aspects of their lives (e.g., evidence for and against belief that treatment "success" means never thinking about suicide ever)



## PTSD Treatment in the Context of Suicide Risk

- Remember, Veterans with PTSD and concurrent suicide risk are often clinically complex and navigating treatment can be challenging
- VA resources are a great outlet to navigating these clinical complexities and ensuring optimal, evidence-based care



## Supporting Providers Who Serve Veterans

Email: [srmconsult@va.gov](mailto:srmconsult@va.gov)

<http://www.mirecc.va.gov/visn19/consult/index.asp>





## Safety Planning Resources for Providers

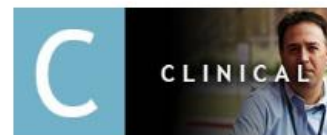
- Safety Plan Treatment Manual to Reduce Suicide Risk  
[http://www.mentalhealth.va.gov/docs/va\\_safety\\_planning\\_manual.pdf](http://www.mentalhealth.va.gov/docs/va_safety_planning_manual.pdf)
- Safety Plan Quick Guide for Clinicians  
<http://www.mentalhealth.va.gov/docs/VASafetyPlanColor.pdf>
- SRM Lecture Series
  - Topics include Safety Planning, Lethal Means Safety, Suicide Risk Assessment, and Postvention  
<https://www.mirecc.va.gov/visn19/consult/>
- Safety Planning for Veterans with PTSD\*  
<https://psycnet.apa.org/record/2019-20030-001>  
\*Contact Dr. Holliday



# Rocky Mountain MIRECC Website

- <https://www.mirecc.va.gov/visn19/>

Rocky Mountain MIRECC for Veteran Suicide Prevention

[Home](#)[Research](#)[Education](#)[Clinical](#)[About Us](#)[Products](#)

Suicide is complex but it is also preventable. Beyond treating Veterans in crisis there are so many ways to tackle this. When you look at the topics we investigate, from gut bacteria to community gatherings, you see the possibilities.





## References

1. Heron, M. (2019). *Deaths: Leading causes for 2017*. Retrieved from [https://www.cdc.gov/nchs/data/nvsr/nvsr68/nvsr68\\_06-508.pdf](https://www.cdc.gov/nchs/data/nvsr/nvsr68/nvsr68_06-508.pdf).
2. Department of Veterans Affairs. (2019). *2019 National Veteran Suicide Prevention Annual Report*. Retrieved from [https://www.mentalhealth.va.gov/docs/data-sheets/2019/2019\\_National\\_Veteran\\_Suicide\\_Prevention\\_Annual\\_Report\\_508.pdf](https://www.mentalhealth.va.gov/docs/data-sheets/2019/2019_National_Veteran_Suicide_Prevention_Annual_Report_508.pdf).
3. Desai, R. A., Dausey, D., & Rosenheck, R. A. (2008). Suicide among discharged psychiatric inpatients in the Department of Veterans Affairs. *Military Medicine*, 173(8), 721-728.
4. Desai, M. M., Rosenheck, R. A., & Desai, R. A. (2008). Time trends and predictors of suicide among mental health outpatients in the Department of Veterans Affairs. *Journal of Behavioral Health Services & Research*, 35(1), 115-124.
5. Zivin, K., Kim, H. M., McCarthy, J. F., Austin, K. L., Hoggatt, K. J., Walters, H., & Valenstein, M. (2007). Suicide mortality among individuals receiving treatment for depression in the Veterans Affairs Health System: Associations with patient and treatment setting characteristics. *American Journal of Public Health*, 97(12), 2193-2198.
6. Ilgen, M. A., Bohnert, A. S. B., Ignacio, R. V., McCarthy, J. F., Valenstein, M. M., Kim, M., & Blow, F. C. (2010). Psychiatric diagnoses and risk of suicide in Veterans. *Archives of General Psychiatry*, 67(11), 1152-1158.
7. Bryan, C. J., Bryan, A. O., May, A. M., & Klonsky, E. D. (2015). Trajectories of suicidal ideation, nonsuicidal self-injury, and suicide attempts in a nonclinical sample of military personnel and Veterans. *Suicide and Life-Threatening Behavior*, 45(3), 315-325.
8. Bryan, C. J., Bryan, A. O., Ray-Sannerud, B. N., Etienne, N., & Morrow, C. E. (2014). Suicide attempts before joining the military increase risk for suicide attempts and severity of suicidal ideation among military personnel and Veterans. *Comprehensive Psychiatry*, 55(3), 534-541.
9. Haney, E. M., O'Neil, M. E., Low, A., Peterson, K., Denneson, L. M., Oleksiewicz, C., & Kansagara, D. (2012). *Suicide risk factors and risk assessment tools: A systematic review*. Retrieved from <https://www.ncbi.nlm.nih.gov/books/NBK92671/>.
10. Hoffberg, A. S., Spitzer, E., Mackelprang, J. L., Farro, S. A., & Brenner, L. A. (2017). Suicidal self-directed violence among homeless US Veterans: A systematic review. *Suicide and Life-Threatening Behavior*, 48(4), 481-498.
11. Holliday, R., Martin, W. B., Monteith, L. L., Clark, S. C., & LePage, J. P. (2020). Suicide among justice-involved Veterans: A brief overview of extant research, theoretical conceptualization, and recommendations for future research. *Journal of Social Distress and Homelessness*. Published online ahead of print.
12. Bossarte, R. M., Knox, K. L., Piegari, R., Altieri, J., Kemp, J., & Katz, I. R. (2012). Prevalence and characteristics of suicide ideation and attempts among active military and Veteran participants in a national health survey. *American Journal of Public Health*, 102(Suppl 1), S38-S40.
13. Pietrzak, R. H., Russo, A. R., Ling, Q., & Southwick, S. M. (2011). Suicidal ideation in treatment-seeking Veterans of Operational Enduring Freedom and Iraqi Freedom: The role of coping strategies, resilience, and social support. *Journal of Psychiatric Research*, 45(6), 720-726.
14. Monteith, L. L., Holliday, R., Miller, C., Schneider, A. L., Hoffmire, C. A., Bahraini, N. H., & Forster, J. E. (2020). Suicidal ideation, suicide attempt, and non-suicidal self-injury among female Veterans: Prevalence, timing, and onset. *Journal of Affective Disorders*, 273, 350-357.
15. Pompili, M., Sher, L., Serafini, G., Forte, A., Innamorati, M., ... Giardi, P. (2013). Posttraumatic stress disorder and suicide risk among Veterans: A literature review. *The Journal of Nervous and Mental Disease*, 201(9), 802-812.
16. Bryan, C. J., Morrow, C. E., Etienne, N., & Ray-Sannerud, B. (2013). Guilt, shame, and suicidal ideation in a military outpatient clinical sample. *Depression & Anxiety*, 30(1), 55-60.



## References

17. Cunningham, K. C., Farmer, C., LoSavio, S. T., Dennis, P. A., Clancy, C. P., ... Beckham, J. C. (2017). A model comparison approach to trauma-related guilt as a mediator of the relationship between PTSD symptoms and suicidal ideation among Veterans. *Journal of Affective Disorders*, 221, 227-231.
18. McLean, C. P., Yang, Y., Zandberg, L., Bryan, C. J., Gay, N., ... the STRONG STAR Consortium. (2017). Predictors of suicidal ideation among active duty military personnel with posttraumatic stress disorder. *Journal of Affective Disorders*, 208, 392-398.
19. Tripp, J. C., & McDevitt-Murphy, M. E. (2017). Trauma-related guilt mediates the relationship between posttraumatic stress disorder and suicidal ideation in OEF/OIF/OND Veterans. *Suicide and Life-Threatening Behavior*, 47(1), 78-85.
20. DeBeer, B. B., Kimbrel, N. A., Meyer, E. C., Gulliver, S. B., & Morissette, S. B. (2014). Combined PTSD and depressive symptoms interact with post-deployment social support to predict suicidal ideation in Operation Enduring Freedom and Operation Iraqi Freedom Veterans. *Psychiatry Research*, 216(3), 357-362.
21. Jakupcak, M., Cook, J., Imel, Z., Fontana, A., Rosenheck, R., & McFall, M. (2009). Posttraumatic stress disorder as a risk factor for suicidal ideation in Iraq and Afghanistan War Veterans. *Journal of Traumatic Stress*, 22(4), 303-306.
23. Oquendo, M., Brent, D. A., Birmaher, B., Greenhill, L., Kolko, D., ... Mann, J. J. (2005). Posttraumatic stress disorder comorbid with major depression: Factors mediating the association with suicidal behavior. *The American Journal of Psychiatry*, 162(3), 560-566.
24. Holliday, R., Borges, L. M., Stearns-Yoder, K. A., Hoffberg, A. S., Brenner, L. A., & Monteith, L. L. (2020). Posttraumatic stress disorder, suicidal ideation, and suicidal self-directed violence among U.S. military personnel and Veterans: A systematic review of the literature from 2010-2018. *Frontiers in Psychology*, 11, 1998.
25. Van Orden, K. A., Witte, T. K., Cukrowicz, K. C., Braithwaite, S. R., Selby, E. A., & Joiner, T. E. (2010). The Interpersonal Theory of Suicide. *Psychological Review*, 117(2), 575-600.
26. Bryan, C. J., Grove, J. L., & Kimbrel, N. A. (2017). Theory-driven models of self-directed violence among individuals with PTSD. *Current Opinion in Psychology*, 14, 12-17.
27. Holliday, R., Monteith, L. L., & Wortzel, H. S. (2018). Understanding, assessing, and conceptualizing suicide risk among Veterans with posttraumatic stress disorder. *Federal Practitioner*, 35(4), 24-27.
28. Bryan, C. J., & Cukrowicz, K. C. (2011). Associations between types of combat violence and the acquired capability for suicide. *Suicide and Life-Threatening Behavior*, 41(2), 126-136.
29. Klonsky, E. D., & May, A. M. (2015) The Three-Step Theory (3ST): A new theory of suicide rooted in the "Ideation-to-Action" Framework. *International Journal of Cognitive Therapy*, 8, 114-129.
30. Cleveland, E. C., Azrael, D., Simonetti, J. A., & Miller, M. (2017). Firearm ownership among American Veterans: Findings from the 2015 National Firearm Survey. *Injury Epidemiology*, 4, 33.
31. Holliday, R., Rozek, D. C., Smith, N. B., McGarity, S., Jankovsky, M., & Monteith, L. L. (2019). Safety planning to prevent suicidal self-directed violence among Veterans with posttraumatic stress disorder: Clinical considerations. *Professional Psychology: Research and Practice*, 50(4), 215-227.
31. Gradus, J. L., Suvak, M. K., Wisco, B. E., Marx, B. P., & Resick, P. A. (2013). Treatment of posttraumatic stress disorder reduces suicidal ideation. *Depression & Anxiety*, 30(10), 1046-1053.
32. Post, L. M., Held, P., Smith, D. L., Black, K., Van Horn, R., Pollack, M. H., Rothbaum, B. O., & Rauch, S. A. M. (2021). Impact of intensive treatment programs for posttraumatic stress disorder on suicidal ideation in veterans and service members. *Psychological Services*. Advance online publication.
33. Roberge, E. M., Weinstein, H. R., & Bryan, C. J. (2019). Predicting response to cognitive processing therapy: Does trauma history matter? *Psychological Trauma: Theory, Research, Practice, and Policy*. Advance online publication.
32. Bryan, C. J. (2016). Treating PTSD within the context of heightened suicide risk. *Current Psychiatry Reports*, 18, 73.

## 4. Questions and Comments

[Ryan.Holliday@va.gov](mailto:Ryan.Holliday@va.gov)